

Date: Tuesday, 04/07/2006 2:20:13 PM  
 User: Linda Lacelle

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : EC 135 SKIDTUBE ASSEMBLY
Job Number : 27809	
Estimate Number : 12472	
P.O. Number : <i>N/A</i>	Part Number : D135751011
This Issue : 04/07/2006 S.O. No. : <i>N/A</i>	Drawing Number : D3507 PRELIMINARY
Prsht Rev. : NC	Project Number : N/A
First Issue : <i>N/A</i> Type : LANDING GEAR	Drawing Revision : PREL
Previous Run : <i>N/A</i>	Material : <i>N/A</i>
Written By : _____	Due Date : 04/08/2006 Qty: 2 Um: Each
Checked & Approved By : _____	
Comment : Est Rev:A 06-06-21 New Issue JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; type labels per PPP D135-751-011 CHG001

*N/A*

2.0	D2962150	3.540 Outer Tube, Extrud
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2962-150

Extrusion

*B27774 DP 6-7-6*

3.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Determine square end of tube and deburr

2-Drill #30 pilot holes using DT8678. Open holes to Ø5/16" (0.313"). Deburr holes.

*DP 6-7-6*

4.0	BENDING	BENDING MACHINE
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Comment: BENDING MACHINE

Bend tube as per program *EC135* on CNC Bender and Dwg D3507. Use 5/16" locator pin on buggy "A".*DP 6-7-6*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Tuesday, 04/07/2006 2:20:14 PM  
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Seq. #:	Machine Or Operation:	Description :
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5.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Cut Fwd end of the tube using DT8185

2-Cut Aft end at VC using DT8185

3-Deburr ends

4-Drill Aft & Fwd Cap holes using DT8678

5-Locate DT8870 & Drill Ground wire hole on top of Tube.

6-Locate DT8870 with 3/16 cleco in Ground wire hole, then Pilot Drill all X-Bolt holes using 3/16" drill.

7-Open Aft & Fwd Cap holes using .208" drill.

8-Drill pilot holes for wearplates using Dt8868

9-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3507.

10-Bore out aft end of tube as per Dwg D3507 & Detail "B".

11-Deburr holes.

DP 6-7-06  
BE 6-7-26

BE 6-7-26 F30

BE 6-7-26

BE 6-7-26

BE 6-7-26

BE 6-7-26  
06-07-25

After Alodine and paint

BE 6-7-26

6.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

06-07-26 (2)

7.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

BE 06-07-27 (2)

8.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
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Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

06-07-27 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

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Job Number:



Seq. #: Machine Or Operation: Description :

3-Deburr and blow out chips from inside of tube.

BE 06-07-27 (2)

4-Bond web as per Dwg D3507 & QSI 015

A/R 241 Sike Flex Batch: M101162  
Exp Date: 07-02-01

BE 06-07-27 (2) 2:00  
06-08-01 (2) 8:00

5-Weld x-bolt (D3504-1/-3) spacers as per Dwg D3507 and Detail C-C & D-D.

A/R AL ROD Batch: M100660 BE 06-08-01

6-Grind welds flush

BE/Pm 06-08-01

7-Drill Rivet Holes as per Dwg D3507 Using Dt8871A&B BE 06-08-01

8-Deburr Rivet holes.

BE 06-08-01

9-Rivet D3506-1/-3 as per Dwg D3507.

BE 06-08-01

Tools: E

16.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

17.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Pm 06-08-01 (2)

18.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3507 and QSI 005 4.4

N/A 06-08-01  
Not required

Batch:

19.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

PL 06/08/08 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Part Number: D135751011

Job Number:



Seq. #:	Machine Or Operation:	Description :
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20.0	ALS71032130	Insert
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4



Comment: Qty.: 38.0000 Each(s)/Unit Total : 76.0000 Each(s)

Insert

Batch: m19393

21.0	ALS41032225	Insert
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Insert

Batch: m19393

22.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

Install Wearplate & Ground Wire inserts as per Dwg D3507.

a.m 06/08/08 (1) (2)  
~~06/08/08~~ (2)

23.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

Inspect Inserts

~~ID~~ 06/08/08 (2)

24.0	D2965	Cap
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

Cap

Batch: m19772

25.0	D35081	WEARPLATE
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27710

26.0	D35083	WEARPLATE
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27714

~~DL~~

a.m

06-08-08

(2)

W/O:		WORK ORDER CHANGES					
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Job Number:



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27.0	D35085	WEARPLATE
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27712

28.0	D35087	WEARPLATE
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27713

29.0	D3492041	PLUG ASSEMBLY
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 8.0000 Each(s)

PLUG ASSEMBLY

Batch: 26304

30.0	D3492047	PLUG ASSEMBLY
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

PLUG ASSEMBLY

Batch: B27776

31.0	AN960JD10L	Washer
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Comment: Qty.: 35.0000 Each(s)/Unit Total : 70.0000 Each(s)

Washer

Batch: M100223

32.0	MS27039108	Screw
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Comment: Qty.: 31.0000 Each(s)/Unit Total : 62.0000 Each(s)

Screw

Batch: M19551

33.0	MS27039109	Screw
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Comment: Qty.: 4.0000 Each(s)/Unit Total : 8.0000 Each(s)

Screw

Batch: M8912

DL 06/08/08 (2)

W/O:		WORK ORDER CHANGES						
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NOTE: Date & initial all entries

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Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:

Machine Or Operation:

Description :

34.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Inspect for Foreign objects

2-Install Fwd & Aft caps as per Dwg D3507 And Detail "A" & "B"

A/R 241 Sika Flex Batch: M10112G

Exp Date: 11/06

3-Install Wearplates as per Dwg D3507 ,seal screws with sikaflex.

Note:Install (1) srcrew and (1) washer on Ground Wire insert on top of tube

Do not Install Scews where indicated on Dwg(Note #6)

A/R 241 Sika Flex Batch: M10112G

Exp Date: 11/06

4-Install Plug assemblys as per Dwg D3507.

DL 06/08/08 (2)

35.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

RL 06-01-08

36.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

37.0

D35121

WEARPLATE



B27716



Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

WEARPLATE

A/R 241 Sika Flex Batch:                     

Exp Date:                     

06.08.09

38.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

DL 06/08/10 (2)

37.1 8

M527039-1-08

Batch M100854

37.2 8

AN960SD10L

Batch: M101291

06/08/10

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Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:

Machine Or Operation:

Description :

39.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D135-751-011

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

Place completed  
skids in eng. lab RH 06.07.28

40.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06.08.25

Job Completion



U 06.08.24

Return  
completed  
w/o to RH

RH 06.07.28

**PRELIMINARY ISSUE**

DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO. D3507	REV. A SHEET 1 OF 2
DATE 06.04.21		TITLE EC 135 SKIDTUBE	SCALE NTS
A	06.04.21	NEW ISSUE	

Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
2	D2965	CAP
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3506-1	DOUBLER
2	D3506-3	DOUBLER
1	D3508-1	WEARPLATE
1	D3508-3	WEARPLATE
1	D3508-5	WEARPLATE
1	D3508-7	WEARPLATE
4	D3492-041	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
35	AN960JD10L	WASHER
12	MS20601AD4W3	RIVET
31	MS27039-1-08	SCREW
4	MS27039-1-09	SCREW

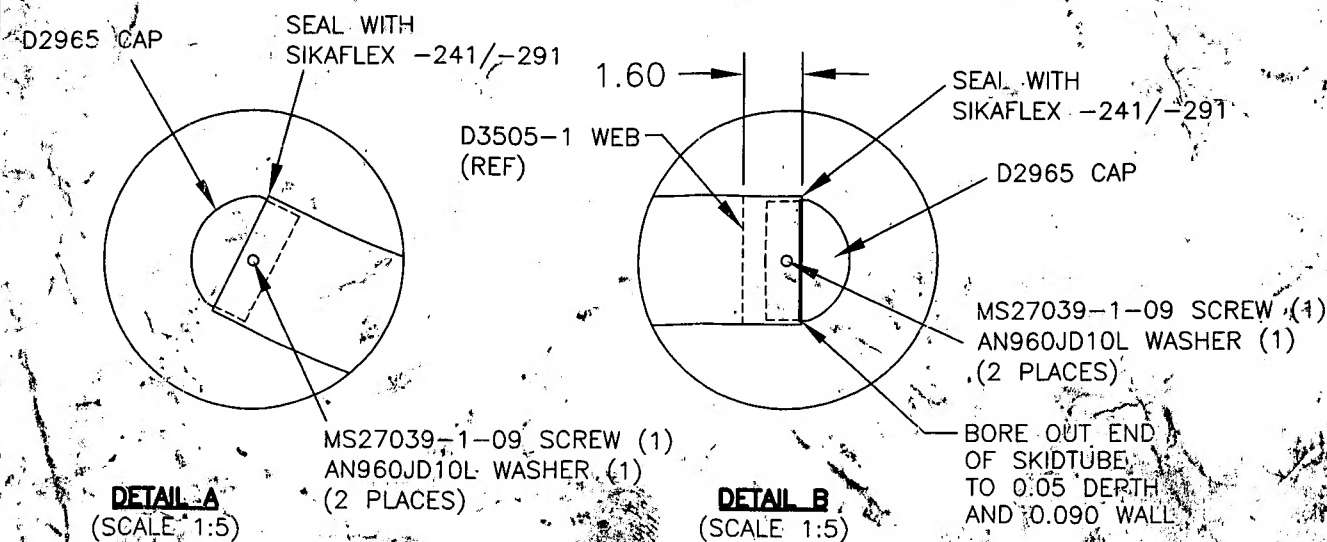
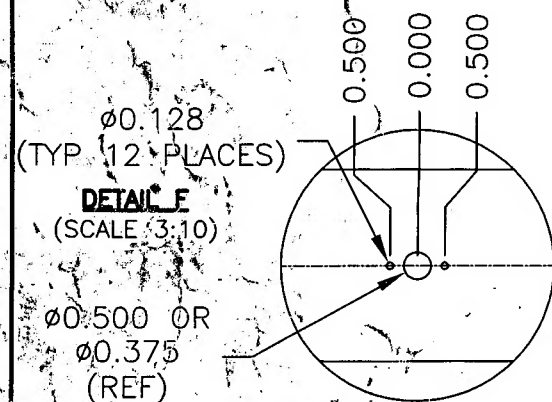
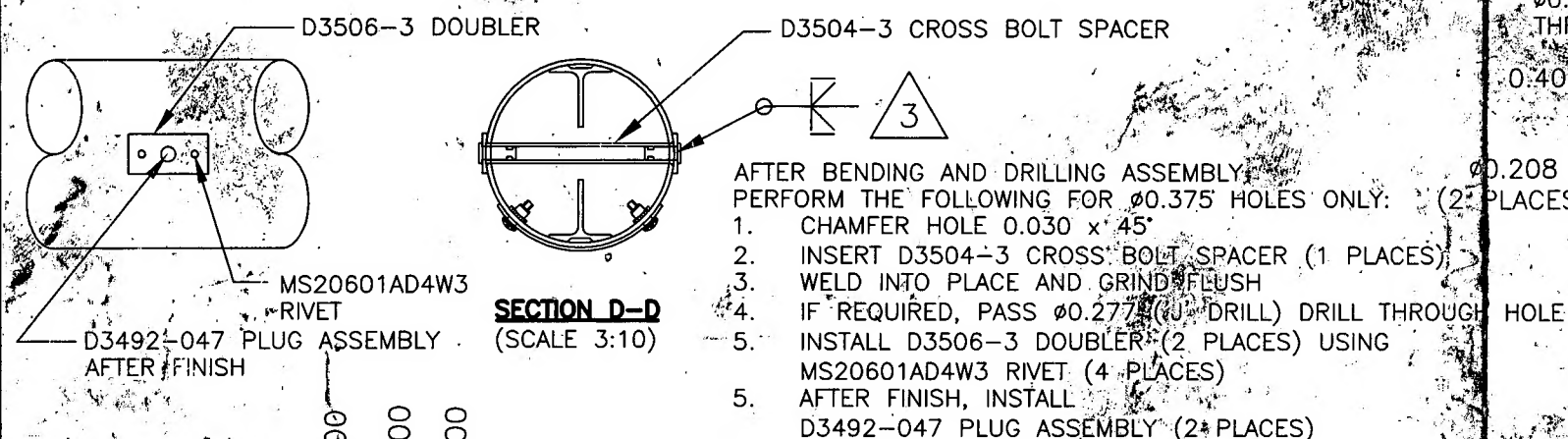
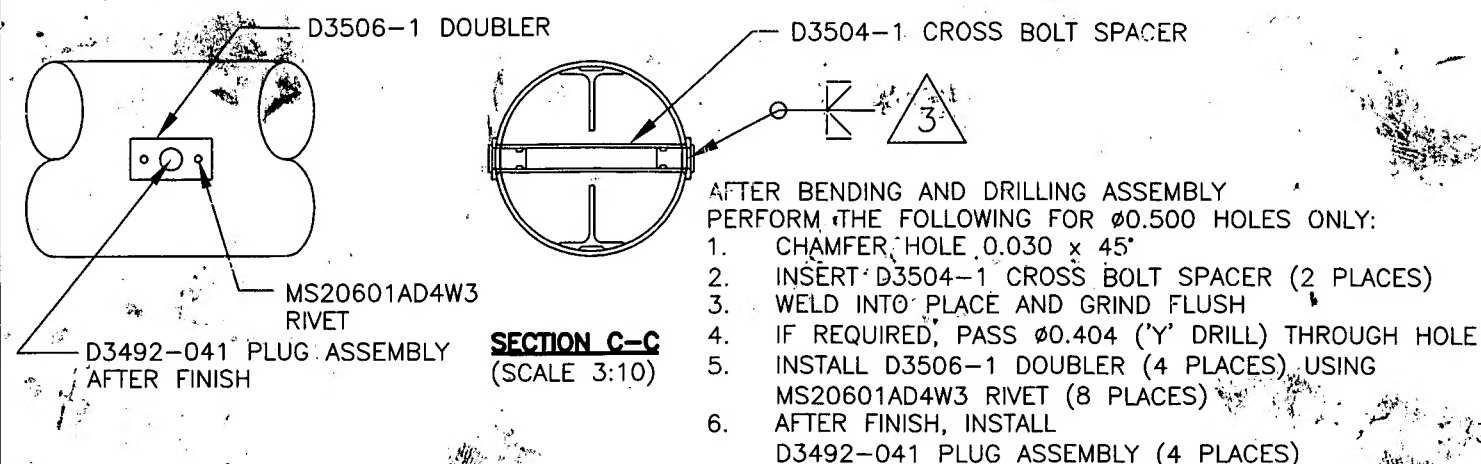
**GENERAL NOTES:**

- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) WELDING TO BE DONE PER DART QSI 004.
- 4) INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/ -291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 5) USE DART DRILL TEMPLATE DT8868 TO LOCATE AND DRILL Ø0.297 HOLES (40 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38 PLACES) AFTER FINISH. SEAL WEARPLATE SCREWS WITH SIKAFLEX-241/-291.
- 6) DO NOT INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN INDICATED LOCATIONS.
- 7) FINISH:  
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4 (OPTIONAL)

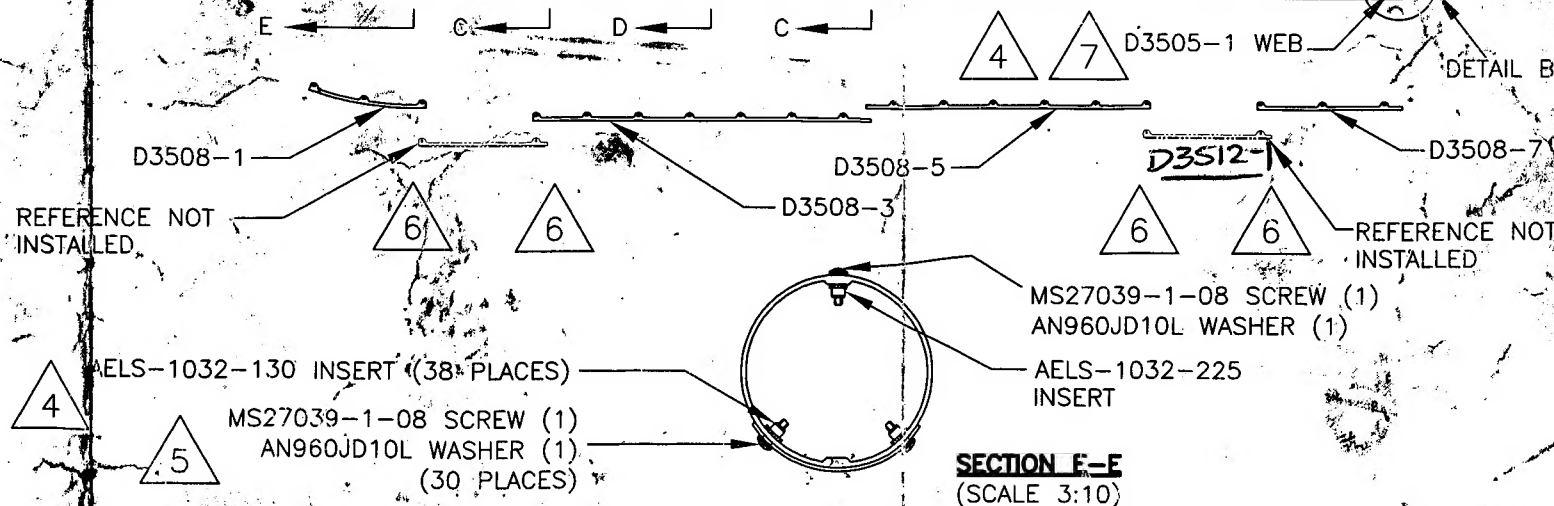
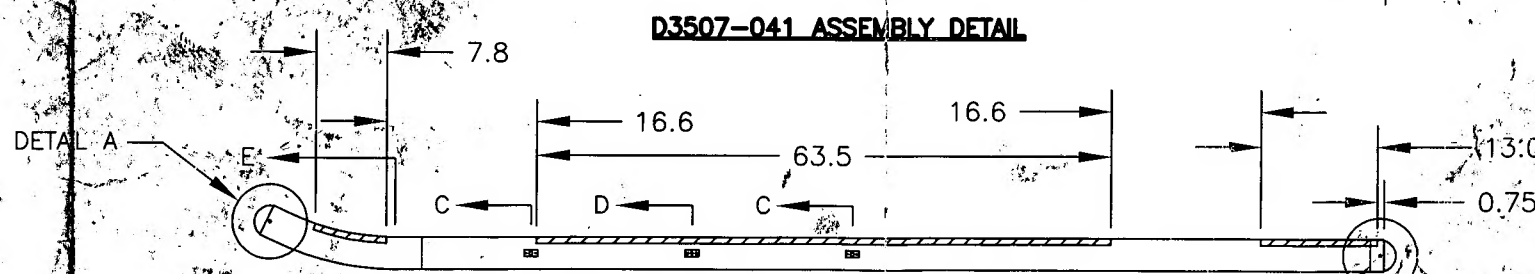
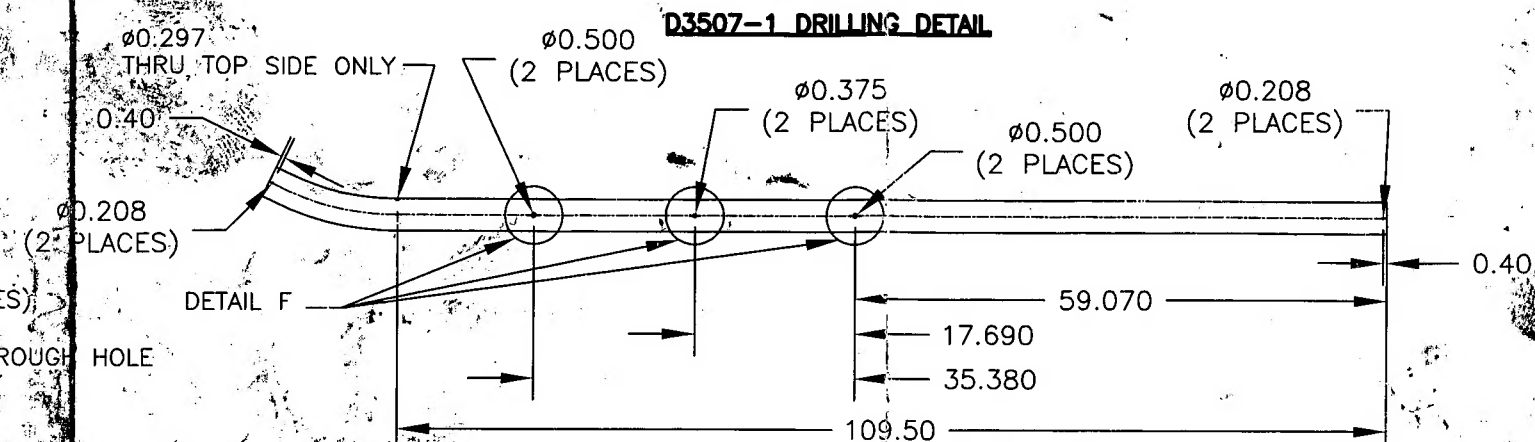
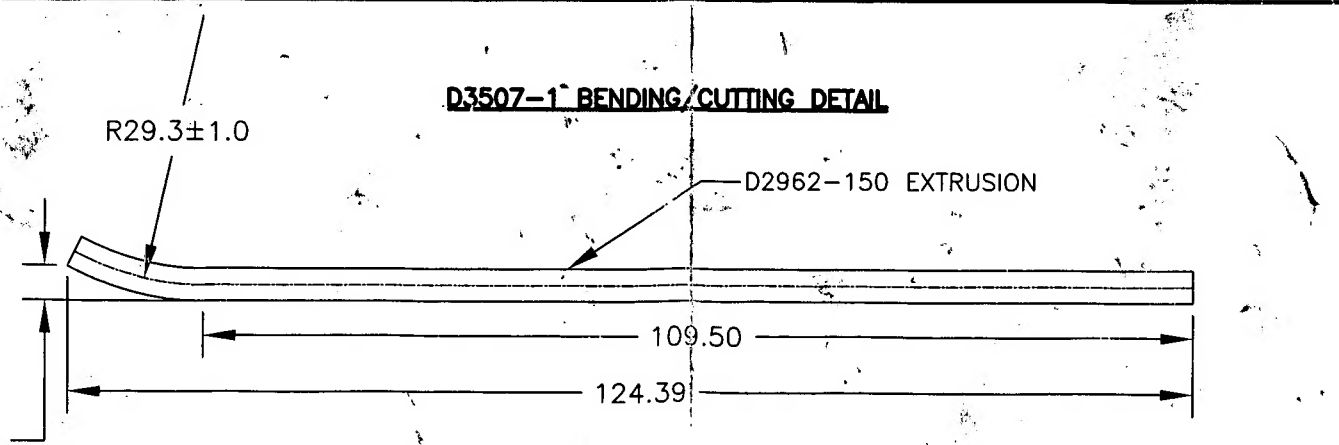
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**PRELIMINARY ISSUE**



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DESIGN	PH	DRAWN BY	PH	<b>DART</b> DART AEROSPACE USA, INC.
CHECKED		APPROVED		PORT HADLOCK, WA
DATE	06.04.21	DRAWING NO.	D3507	REV. A
		TITLE	EC 135 SKIDTUBE ASSEMBLY	SHEET 2 OF 2
		SCALE	1:20	





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Part Number: D135751011

Job Number:



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9.0	D35043	CROSSBOLT SPACER
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Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

CROSSBOLT SPACER

Batch: B28034 BE 06-08-01

10.0	D35041	CROSSBOLT SPACER
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Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

CROSSBOLT SPACER

Batch: B28033 BE 06-08-01

11.0	D35051	WEB
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

WEB

Batch: B27811 BE 06-07-27 (2)

12.0	D35061	DOUBLER
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Comment: Qty.: 4.0000 Each(s)/Unit Total: 8.0000 Each(s)

DOUBLER

Batch: B27714 BE 06-08-01

13.0	D35063	DOUBLER
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Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

DOUBLER

Batch: B27715 BE 06-08-01

14.0	MS20601AD4W3	Rivet
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Comment: Qty.: 12.0000 Each(s)/Unit Total: 24.0000 Each(s)

Rivet

Batch: M B325 BE 06-08-01

15.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Open X-Bolt holes to .375"(2Places) & .500"(2Places) as per Dwg D3507. and Detail "F" BE 06-07-27 (2)

2-Counter Sink X-BOLT holes as per Dwg D3507

BE 06-07-27 (2)

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☐ DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_